

**Amendments to and Listing of the Claims:**

1. to 8. (Cancelled)

9. (Withdrawn; Currently amended) The method of ~~claim 1~~claim 31, wherein said the ISIS is a thiazolidinedione.

10. (Withdrawn) The method of claim 9, wherein said thiazolidinedione is selected from the group consisting of troglitazone, ciglitazone, pioglitazone, rosiglitazone, and englitazone.

11. (Withdrawn) The method of claim 10, wherein said ISIS is troglitazone.

12. (Withdrawn; Currently amended) The method of ~~claim 1~~claim 31, wherein said the ISIS is D-chiro-inositol.

13. to 19. (Cancelled)

20. (Withdrawn) A composition for treating a disorder of the pilosebaceous apparatus of a mammal, said composition comprising an ISIS in an amount effective to treat said disorder of said pilosebaceous apparatus in said mammal.

21. (Withdrawn) The composition of claim 20, wherein said ISIS is a thiazolidinedione.

22. (Withdrawn) The composition of claim 21, wherein said ISIS is a compound selected from the group consisting of troglitazone, ciglitazone, pioglitazone, rosiglitazone, and englitazone.

23. (Withdrawn) The composition of claim 20, wherein said ISIS is a biguanide.

24. (Withdrawn) The composition of claim 23, wherein said biguanide is metformin hydrochloride.

25. (Withdrawn) The composition of claim 20, wherein said ISIS is D-chiro-inositol.

26. (Withdrawn) The composition of claim 20, wherein said composition further comprises at least one of an androgen receptor blocking agent (ARB) and an steroid enzyme inhibitor or inducer (STI), wherein said androgen receptor blocking agent (ARB) is present in an amount effective to block androgen receptor activity in said mammal, and wherein said steroid

enzyme inhibitor or inducer (STI) is present in an amount effective to inhibit or induce the activity of a steroid enzyme of said mammal.

27. (Withdrawn) The composition of claim 20, wherein said composition is for topical administration and further comprises an activity-enhancing agent, wherein said activity-enhancing agent is present in an amount effective to enhance the activity of the ISIS alone or in combination with at least one of an androgen receptor blocking agent (ARB) and a steroid enzyme inhibitor or inducer (STI) in treating the disorder of the pilosebaceous apparatus of said mammal.

28. (Withdrawn) The composition of claim 27, wherein said activity-enhancing agent comprises at least one substance selected from the group consisting of a penetration-enhancing agent, a vasodilator compound, an anti-inflammatory agent, a glucose/insulin-regulating compound, a glycosylation inhibitor, and an endogenous or exogenous effector.

29. (Withdrawn) The composition of claim 20, wherein said composition is in the form of a pharmaceutical composition.

30. (Withdrawn) The composition of claim 29, wherein said pharmaceutical composition comprises an ISIS and at least one of an androgen receptor blocking agent (ARB) and an steroid enzyme inhibitor or inducer (STI).

31. (New) A method of treating alopecia comprising administering to the mammal an insulin sensitivity increasing substance (ISIS) in an amount effective to treat the alopecia in the mammal, in a manner so as to reach an affected area of a pilosebaceous apparatus.

32. (New) The method of claim 31, wherein treating alopecia comprises at least one of inhibiting, reducing and reversing the loss of hair in the mammal.

33. (New) The method of claim 31, wherein said ISIS is administered topically to the affected site.

34. (New) The method of claim 31, wherein the ISIS is a biguanide.

35. (New) The method of claim 34, wherein the biguanide is metformin hydrochloride.

36. (New) The method of claim 31, wherein the ISIS is administered orally.

37. (New) The method of claim 31, wherein the mammal is a human.

38. (New) The method of claim 31, further comprising administering to the mammal a steroid enzyme inhibitor or inducer (STI) in an amount effective to inhibit or induce the activity of a steroid enzyme in the mammal.

39. (New) The method of claim 31, wherein the steroid enzyme inhibitor or inducer (STI) is selected from the group consisting of a 5-alpha reductase inhibitor (ARI), a 3-alpha hydroxy steroid dehydrogenase inhibitor, and a 17-beta hydroxy steroid dehydrogenase inducer.

40. (New) The method of claim 31, further comprising administering to the mammal an androgen receptor blocking agent (ARB) in an amount effective to block androgen receptor activity in the mammal.

41. (New) The method of claim 31, wherein the androgen receptor blocking agent ARB is a compound selected from the group consisting of cyproterone acetate, flutamide, bicalutamide, nilutamide, RU-58841, canrenone, spironolactone, progesterone, 4MA, ketoconazole, and cimetidine.

42. (New) The method of claim 31, further comprising administering to the mammal both an androgen receptor blocking agent (ARB) in an amount effective to block androgen receptor activity, and a steroid enzyme inhibitor or inducer (STI) in an amount effective to inhibit or induce the activity of a steroid enzyme in the mammal.

43. (New) The method of claim 31, further comprising administering to the mammal an activity-enhancing agent where any ISIS alone or in combination with an androgen receptor blocking agent (ARB) or steroid enzyme inhibitor or inducer (STI) is to be administered topically, wherein the activity-enhancing agent is administered to the mammal in an amount effective to enhance the activity of either the ISIS alone or in combination with the androgen receptor blocking agent (ARB) and/or the steroid enzyme inhibitor or inducer (STI).

44. (New) The method of claim 43, wherein the activity-enhancing agent comprises at least one substance selected from the group consisting of a penetration-enhancing agent, a vasodilator compound, an anti-inflammatory agent, a glucose/insulin regulating compound, and an endogenous or exogenous effector.